

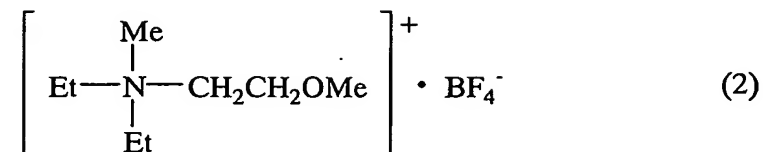
CLAIMS:

1. An electrical double-layer capacitor comprising a pair of polarizable electrodes, a separator between the polarizable electrodes and a liquid electrolyte,
5 which electrical double-layer capacitor is characterized in that the polarizable electrodes contain as a main component an activated carbon having micropores with a pore radius distribution peak as determined by the MP method
10 within a range of 4.0×10^{-10} to 8.0×10^{-10} m, and the liquid electrolyte includes an electrolyte salt which is an ionic liquid.
2. The electrical double-layer capacitor of claim 1 which
15 is characterized in that the ionic liquid is a quaternary ammonium salt or a quaternary phosphonium salt.
3. The electrical double-layer capacitor of claim 2 which is characterized in that the ionic liquid has general formula
20 (1) below



wherein R^1 to R^4 are each independently an alkyl group of 1 to 5 carbons or an alkoxyalkyl group of the formula $R'-O-(CH_2)_n-$ (R' being methyl or ethyl, and the letter n
25 being an integer from 1 to 4), and any two from among R^1 , R^2 , R^3 and R^4 may together form a ring, with the proviso that at least one of R^1 to R^4 is the alkoxyalkyl group of the above formula; X is a nitrogen atom or a phosphorus atom; and Y is a monovalent anion.

4. The electrical double-layer capacitor of claim 3 which is characterized in that the ionic liquid has general formula (2) below



5 wherein Me stands for methyl and Et stands for ethyl.

5. The electrical double-layer capacitor of any one of claims 1 to 4 which is characterized in that the pore radius distribution peak is in a range of 4.5×10^{-10} to 7.0×10^{-10} .

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6. The electrical double-layer capacitor of any one of claims 1 to 5 which is characterized in that the ionic liquid has a concentration in the liquid electrolyte of from 0.5 to 2.0 mol/L.

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7. The electrical double-layer capacitor of any one of claims 1 to 6 which is characterized in that an activated carbon is the activated form of a synthetic resin.

20 8. The electrical double-layer capacitor of claim 7 which is characterized in that the activated carbon is a steam-activated form of a synthetic resin.

25 9. The electrical double-layer capacitor of claim 7 or 8 which is characterized in that the synthetic resin is a phenolic resin and/or a polycarbodiimide resin.